

LOOKINGGLASS HATCHERY 1997

-Above normal snow pack melt-off, caused high and turbid water conditions in January and again in May. Heavy silt loads were deposited in all rearing containers. The intake screen spray system plugged on screen #2, sending debris through the early rearing trough supply system, plugging a valve on one trough of Imnaha fingerlings, low dissolved oxygen caused the loss of 7,655 fish.

-The volume and velocity of the May run-off sank the Lookingglass floating weir. Once the flows had subsided, the weir was removed from the creek, repaired, and then placed back into the creek.

- The Imnaha river again reached flood stage in May and the floating weir was lost.

- Two crew members traveled to Powell Idaho to "DIG-OUT" surplus weir panels to be used at Imnaha Trapping facility. Panels were buried under 12 feet of snow.

- Rapid River stock 8596: An outbreak of Bacterial Kidney Disease resulted in 9.76% mortality in July ; 7.47% loss in August and 2.8% loss in September.

-The crew painted the upstairs apartments, store room, small work shop, lab and office hallway.

- Installed new air compressor on the intake screen air bubbler system.

- Replaced stripped out worm gear collar on waterman gate / intake fish ladder entrance.

- Replaced broken waterman gate lift housing at intake.

- The GMC crew cab was checked for 4X4 growls and howls. A complete brake job was performed to eliminated grabbing brakes, which was a safety concern. The AM \ FM radio and antenna lead were replaced.

- Non-skid paint was applied to the floor in the incubation /early rearing area, the spawning room, and feed room.

-Well #2 pump and motor was serviced. The well line, air pressure-relief valve, was replaced with our spare unit.

- Replacement dam boards and water gates for all 18 raceways were fabricated.

- Lincoln portable welder was repaired by factory service representative.

- Ryan TempMentor was serviced and re-calibrated.

- Replaced deteriorated wooden entrance doors on residential garages with metal doors.

-Radon detectors were analyzed and returned with low readings for the year. New detectors were put into service.

-The large "Lookingglass Hatchery" sign was re-located, from the settling pond to the intersection 6 miles from facility to encourage visitors.

- Settling pond was drained, dried up and sediments were removed to landfill on hatchery site.
- A large earthen and railroad tie, equipment loading ramp was constructed by hatchery crew.

CONTRACTED WORK

- FMC LINK BELT, FLORIDA based repair crew completed work on the replacing / repairing flood damaged rotating screens and spray system.
- PURSEWELL PUMPS, PENDLETON, replaced pump systems on the intake rotating screen spray system.
- ALL STAR CHEVROLET, MOSCOW, IDAHO, replaced the water pump and radiator on the G.M.C. crewcab 4X4.
- A.C. ELECTRIC, LaGRANDE, replaced the incubation room light dimming system and replaced the outdoor raceway low water alarm system.
- MARTINS CONSTRUCTION, COVE, replaced 3 snow damaged storage sheds.
- MITRAC CONSTRUCTION, LA GRANDE, removed gravel deposited in the intake pool during the flood of '97 and placed rip rap to secure the eroding hillside upstream of the intake structure.
At Imnaha Facility rip rap was replaced and the Mitsubishi Weir anchoring system was installed.
- PUBLIC WORKS DEPT., CITY OF LA GRANDE, cleared debris clogging the 250 foot long fingerling bypass culvert, using high pressure sewer flushing equipment.
- CIVIL CONSTRUCTION, THE DALLES, removed and replaced the flood damaged fish weir and fish ladder at the Lookingglass intake.
- PAUL WOLF, INC., Poured concrete footings in the intake storage building damaged by flooding.
- MCGOWAN CONSTRUCTION, serviced the well water chillers, updated the chiller monitoring desktop computer hardware / software, and installed an additional valve in the chilled water delivery system.
- STEELE'S SEPTIC TANK SERVICE, LaGRANDE, removed and replaced 3 rusted-out, failed, residential septic tank systems.

MAJOR EXPENSES

FMC, Intake screens repair (Flood '96).....	\$ 126,000.00
Mitrac Construction, (Flood '96 & '97).....	\$ 74,077.00
Imnaha Road Repairs (Flood '97).....	\$ 3,500.00
Pursewell Pump, Intake spray pumps replaced (Flood '96).....	\$ 12,000.00
Civil Construction intake weir & ladder repair (Flood '96).....	\$ 70,000.00
Martin's Construction, replace snow damaged storage buildings...	\$ 14,000.00
AC Electric, Hatch Room lights	\$ 3,000.00
McGowan Construction, well water chiller upgrade.....	\$ 6,500.00
Banes Electric, Imnaha Portable Generator hook-up.....	\$ 4,100.00
Foster's Plumbing & Heating, repair ice damaged roof.....	\$ 1,975.00
Lib tank for hauling Captive Broo....plus modifications.....	\$ 19,000.00
Paul Wolf, Inc., Intake building footings.....	\$ 3,500.00
Other Flood related expenses.....	\$ 7,500.00

'97-'98 MAJOR PROJECTS IN PROGRESS

Water Treatment Facility.....Ozone / UV.....\$5 mil - \$20 mil

Underground fuel storage Tank Replacement

Hatchery Design Deficiencies:

- Hatchery building roofs
- Hatchery building brickwork on facia
- Hatchery building planter boxes (brickwork)
- Intake Debris removal channel
- Modification of 275 kW Generator building air flow
- Well #2 control electrical system
- Aeration tower modifications

Endemic Brood Adult Rearing..... \$ 41,000.00

Captive Brood Rearing modifications.....\$ 380,000.00

Adult Returns to Hatchery

Imnaha Stock Chinook, Broodyear 1997
Returns to Imnaha Facility

Date of first return	7/08/97
Date of last return	9/03/97
Adults returning*	207 females 264 males
Date of peak returns	7/25/97
Adults released to spawn naturally	53 females 65 males
Adult mortalities at Imnaha	23 females 33 males

*Of these, 132 females and 165 males were transferred to Lookingglass Hatchery for spawning.

Rapid River Stock Chinook, Broodyear 1997
Returns to Lookingglass Hatchery

Date of first return	6/05/97
Date of last return	9/15/97
Adults returning	43 females 60 males
Date of peak returns	6/12/97
Adults released to spawn naturally	31 females 45 males
Adult mortalities	8 females 3 males

Adults Trapped Off Hatchery and Transported

Rapid River Stock Chinook, Broodyear 1997
Transported to Lookingglass Hatchery

Where trapped	Lower Granite Dam
Dates trapped	4/11/97 - 6/11/97
Adults trapped	212 females 186 males*
Adults released to spawn naturally	0
Mortality of adults trapped	7 females 3 males

*Of these, 156 females and 150 males were moved to Wallowa Hatchery. Chinook trapped at Lower Granite Dam after 6/11/97 were transported directly to Wallowa Hatchery (see below).

Rapid River Stock Chinook, Broodyear 1997
Transported to Wallowa Hatchery

Where trapped	Lower Granite Dam
Dates trapped	6/20/97 - 7/31/97
Adults trapped	16 females 16 males
Adults released to spawn naturally	0
Mortality of adults trapped	33 females 37 males*

*Mortality figures include losses from 156 females and 150 males moved to Wallowa Hatchery from Lookingglass Hatchery.

In addition to the Rapid River chinook shown in the two tables above, 175 females and 107 males were trapped at Lower Granite Dam and transferred directly to the Nez Perce Tribe, Sawtooth Hatchery, to meet program needs.

Adults Trapped Off Hatchery and Transported

Grande Ronde Stock Chinook, Endemic Brood, Broodyear 1997
Transported to Lookingglass Hatchery

Where trapped	Upper Grande Ronde River
Dates trapped	6/27/97
Adults trapped	1 female 0 males
Adults released to spawn naturally	1 female*
Mortality of adults trapped	0

*Lone female was taken back to Grande Ronde River and released when no males could be obtained.

Lostine River Stock Chinook, Endemic Brood, Broodyear 1997
Transported to Lookingglass Hatchery

Where trapped	Lostine River
Dates trapped	7/18/97 - 9/04/97
Adults trapped	11 females 12 males
Adults released to spawn naturally	6 females 9 males
Mortality of adults trapped	0

Spawning Record

Imnaha Stock Chinook, Broodyear 1997
Eggs taken at Lookingglass Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/15/97	19,357	4	4
8/22/97	98,141	20	18
8/29/97	127,678	25	40*
9/03/97	3,486	1	1*
9/05/97	27,185	6	9*
9/12/97	6,976	2	1

*Males spawned includes sperm-on-ice (SOI) taken from live males - 1 SOI equals 1 male. Used 5 SOI on 8/29; 1 SOI on 9/03; and 1 SOI on 9/05.

Total females spawned:	58
Total males spawned:	73
Number of green eggs:	282,823
Total number of eyed eggs:	208,215
Number of eggs for rearing:	N/A
Number of eggs shipped:	N/A
Date of last spawning:	9/12/97

Spawning Record

Rapid River Chinook, Broodyear 1997
Eggs taken at Wallowa Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/28/97	5,112	1	1
9/04/97	126,524	31	31
9/11/97	270,630	68	68
9/16/97	5,527	1	1
9/23/97	4,562	1	1

Green eggs taken to Irrigon Hatchery for incubation and rearing (except for 5,830 green eggs taken to Lookingglass Hatchery for eye-up and subsequent shipment to OSU).

Total females spawned:	102
Total males spawned:	102
Number of green eggs:	412,355
Total number of eyed eggs:	333,064
Number of eggs for rearing:	325,120
Number of eggs shipped:	7,944
Date of last spawning:	9/23/97

Spawning Record

Lostine River Stock Chinook, Endemic Brood, Broodyear 1997
Eggs taken at Lookingglass Hatchery

Date Spawned	Number of Eggs Taken	Females Spawned	Males Spawned
8/26/97	4,253	1	1
8/28/97	4,357	1	1
9/03/97	4,955	1	1
9/05/97	3,976	1	1

Total females spawned: 4
Total males spawned: 4
Number of green eggs: 17,541
Total number of eyed eggs: 12,054
Number of eggs for rearing: N/A
Number of eggs shipped: N/A
Date of last spawning: 9/05/97

Rearing to Fry Stage Only

Rapid River Chinook, Broodyear 1996
Lookingglass Hatchery

Hatched from eyed eggs	67,597
Percent hatched - eyed eggs to fry	99.9%
Percent mortality to stocking	74.0%
Total fry stocked	7,230
Total weight of fry stocked	41.0 lbs
Average no/lb of fry stocked	176.3
Conversion rate	1.5

Rearing to Fingerling Stage Only

Imnaha Stock Chinook, Broodyear 1995
Lookingglass Hatchery

Number of fingerlings produced	50,911
Weight of fingerlings produced	2,998.3
Percent mortality to stocking	0.8%
Average no/lb of fingerlings produced	17.0
Conversion rate	1.65

Cape Cod Stock Rainbow Trout, Broodyear 1995
Wallowa Hatchery

Number of fingerlings produced	12,829
Weight of fingerlings produced	314.4
Percent mortality to stocking	8.6%
Average no/lb of fingerlings produced	40.8
Conversion rate	1.15

Smolts Reared

Wallowa Stock Steelhead, Broodyear 1996
Irrigon Hatchery direct stream releases

Number of smolts produced	262,459
Weight of smolts produced	53,099.1
Average no/lb of smolts produced	4.9
Percent mortality	3.5%
Conversion rate	1.09

Rapid River Chinook, Broodyear 1995
Lookingglass

Number of smolts produced	153,478
Weight of smolts produced	8,107.3
Average no/lb of smolts produced	18.9
Percent mortality	5.2%
Conversion rate	1.42

Food Fed and Weight Gain

Imnaha Stock Steelhead, Broodyear 1996

Total pounds of food fed	6,540
Conversion rate - total all stages	2.60
Total weight gain	2,513

Wallowa Stock Steelhead, Broodyear 1996

Total pounds of food fed	315,732
Conversion rate - total all stages	1.14
Total weight gain	278,098

Imnaha Stock Chinook, Broodyear 1995

Total pounds of food fed	655
Conversion rate - total all stages	1.65
Total weight gain	396.9

Rapid River Stock Chinook, Broodyear 1995

Total pounds of food fed	11,552
Conversion rate - total all stages	1.42
Total weight gain	8,147.3

Rapid River Stock Chinook, Broodyear 1996

Total pounds of food fed	5335.8
Conversion rate - total all stages	1.48
Total weight gain	3609.9

Food Fed and Weight Gain

Cape Cod Stock Rainbow Trout, Broodyear 1995

Total pounds of food fed	54,277
Conversion rate - total all stages	1.57
Total weight gain	34,671

Lostine Stock Chinook, Captive Brood, Broodyear 1995

Total pounds of food fed	67.61
Conversion rate - total all stages	--
Total weight gain	--

Catherine Creek Chinook, Captive Brood, Broodyear 1995

Total pounds of food fed	63.17
Conversion rate - total all stages	--
Total weight gain	--